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DRAFT Southern California Association of Governments Catalog of Transportation Land Use (TLU) GHG Reduction Policy Options

A catalog of greenhouse gas (GHG)–reducing actions and policy options based on actions undertaken or considered in climate change action plans by multi-stakeholder groups in a wide cross-section of U.S. states and by state, local, and private participants.

Key to Nominal Rankings of Options in the Tables That Follow:

Potential GHG Emission Reductions [1]	Potential Cost or Cost Savings [1, 2]
High (H): At least 1.0 million metric tons (MMt) carbon dioxide equivalent (CO_2e) per year by 2030	**High (H)**: $100 per metric ton CO_2e (tCO_2e) or above
Medium (M): From 0.1 to 1.0 $MMtCO_2e$ per year by 2030	**Medium (M):** \$0 to \$100/tCO_2e
Low (L): Less than 0.1 $MMtCO_2e$ per year by 2030	**Low (L):** Less than \$0/tCO_2e
Uncertain (U): Insufficient information to estimate at this time	**Uncertain (U):** Insufficient information to estimate at this time

[1] Several measures may overlap in terms of emissions reductions and/or cost impacts. "Stand-Alone" estimates provide values for measures that would be implemented independently of other measures, before accounting for potential overlap or synergies
[2] Costs are denoted by a positive number. Cost savings (i.e., "negative costs") are denoted by a negative number.

Definition of "Priorities for Analysis":

- **High:** High-priority options will be analyzed first.

- **Medium:** Medium-priority options will be analyzed next, time and resources permitting.
- **Low**: Low-priority options will be analyzed last, time and resources permitting.

Important Note: The actions are numbered in this catalog solely for convenience in referencing them. Their numbers do NOT reflect a ranking or prioritization of the actions.

Integrated Transportation Land Use (ITLU)

Note that this listing will be developed more fully during the ITLU TWG process. TWG members are encouraged to provide input on policies and programs currently in place to assist in defining baseline conditions. The "Notes" column may be used to record recently enacted policies and programs.

Option No.	GHG Reduction Policy Option	Potential GHG Emission Reductions	Cost per Ton	Externalities, Feasibility Considerations	Priority for Analysis	Notes/Related Actions
TLU-1. PRIORITY GROWTH CENTERS						
1.1	Infill Redevelopment					
1.2	Transit-Oriented Development					
1.3	Brownfield Redevelopment					
1.4	Station Area Planning Requirements					
1.5	Downtown Revitalization					
1.6	Targeted Density for Priority Growth Centers					
1.7	Support revitalization of older, densely settled urban areas					
1.8	Support compact, mixed-use centers in older developed suburban areas					
1.9	Live-work buildings and multi-use buildings					

Option No.	GHG Reduction Policy Option	Potential GHG Emission Reductions	Cost per Ton	Externalities, Feasibility Considerations	Priority for Analysis	Notes/Related Actions
1.10	Urban Growth Boundary					
1.11	Location and Timing of Urban Development					
1.12	Urban Service Lines					
1.13	Urban-Rural Transition Zones					
1.14	Mixed-Use Development					
1.15	Allowable Building Heights					
1.16	Prototype Adaptive Use Buildings					
1.17	Employer-Assisted Housing					
1.18	Services Near Employment Centers					
1.19	Transit-Oriented Mixed-use					

Option No.	GHG Reduction Policy Option	Potential GHG Emission Reductions	Cost per Ton	Externalities, Feasibility Considerations	Priority for Analysis	Notes/Related Actions
1.20	Flexible Parking & Building Height					
1.21	Transit-oriented Brownfield Development					
1.22	Density Near Activity Centers					
1.23	Density Near Transit Routes					
1.24	Links to Transit Stops					
1.25	Affordable Housing					
1.26	System Interconnectivity					
1.27	Employment Density					
1.28	Mixed-income, Market-rate Housing					
1.29	Re-use and Redevelop Alley-ways					

Option No.	GHG Reduction Policy Option	Potential GHG Emission Reductions	Cost per Ton	Externalities, Feasibility Considerations	Priority for Analysis	Notes/Related Actions
1.30	Link Job Centers and Housing					
1.31	Livable Boulevards					
1.32	Commercial Corridor Redevelopment					
TLU-2 LAND USE PLANNING MEASURES						
2.1	Smart Growth Planning, Modeling, and Tools					
2.2	Targeted Open-Space and Natural Resource Protection					
2.3	"Fix-It-First" and Location-Efficient Funding Strategies					
2.4	Land Use and Building Code Reform					
2.5	Location-efficient mortgage					
2.6	Targeted infrastructure investment section toward priority growth centers					
2.7	Zoning reform measures					
2.8	Support natural resource conservation in outlying areas.					

Option No.	GHG Reduction Policy Option	Potential GHG Emission Reductions	Cost per Ton	Externalities, Feasibility Considerations	Priority for Analysis	Notes/Related Actions
2.9	Flexible Development Standards					
2.10	Housing Overlay Zone					
2.11	Rezone to Allow Mixed Use					
2.12	Expand Zoning for Multi-Family Housing					
2.13	Public Transit Development Focus					
2.14	City-oriented Corridors					
2.15	Transit-oriented Development Design Standards					
2.16	Design Short Walk to Center					
2.17	Increase Density Towards Center					
2.18	Direct Business Space to Center					
2.19	Locate Schools with Safe Routes					
2.20	Location of Driveways					
2.21	Street Parking as Buffer					

Option No.	GHG Reduction Policy Option	Potential GHG Emission Reductions	Cost per Ton	Externalities, Feasibility Considerations	Priority for Analysis	Notes/Related Actions
2.22	Planting Trees for Shade					
2.23	Replace Hardscape with Low-Water Landscape					
2.24	Xeriscaping					
2.25	"Complete Streets" Policies					
2.26	Develop Green Alley Program					
2.27	Neighborhood Interconnectivity					
2.28	Site Planning and Design Strategies to Promote Walking, Bicycling, and Transit Use					
TLU 3 LOCAL CODE DEVELOPMENT, ENHANCEMENT, AND ENFORCEMENT						
3.1	Emphasize local authority to require low impact development					
3.2	Assess climate impacts of development					
3.3	Streamlining development projects that reduce VMT, energy consumption, transportation impact.					

Option No.	GHG Reduction Policy Option	Potential GHG Emission Reductions	Cost per Ton	Externalities, Feasibility Considerations	Priority for Analysis	Notes/Related Actions
3.4	Develop model green development and green building laws for local governments to adapt and adopt					
3.5	Assessment of regional impact development projects for climate mitigation					
3.6	Enhance energy efficiency code enforcement and development					
3.7	Prepare model components to add to plans regarding transit station area plans and energy conservation					
3.8	Ensure local enforcement of the state energy code					
3.9	Prepare model energy code enhancement provisions for local adoption					
3.10	Transferable development rights (TDRs)					
3.11	Supportive Pre-planning					
3.12	Amend Code to Promote Transit-Oriented Mixed-use					

Option No.	GHG Reduction Policy Option	Potential GHG Emission Reductions	Cost per Ton	Externalities, Feasibility Considerations	Priority for Analysis	Notes/Related Actions
3.13	Equal Pedestrian Access					
3.14	Zones and Codes for Live-Work					
3.15	Require TOD through the TRP					
3.16	Parking TIFs					
3.17	Reform Public Finance System					
3.18	Analyze Parking Supply and Demand					
3.19	Parking Management Strategies e.g. Shared Parking					
TLU-4 INCENTIVE AND DISINCENTIVE PROGRAMS						
4.1	Develop incentives to encourage the reuse of already developed properties, regardless of ownership, before developing natural areas					
4.2	Preserve & manage open space in hillsides and water spreading grounds					

Option No.	GHG Reduction Policy Option	Potential GHG Emission Reductions	Cost per Ton	Externalities, Feasibility Considerations	Priority for Analysis	Notes/Related Actions
4.3	Develop an awards program for preservation of open space & ecological benefits					
4.4	Use plants from local gene pool in local projects adjacent to natural open spaces					
4.5	Develop a species list of water wise and ecologically friendly plants for use in new development and other landscape projects					
4.6	Provide incentives for development projects that include significant natural or constructed open space					
4.7	Provide an extensive and safe system for walking and hiking that links areas					
4.8	Density Bonus Programs					
4.9	Discourage Auto-oriented Development					
4.10	Developer Fees					
4.11	Reduce Fees for Brownfield Development					

Option No.	GHG Reduction Policy Option	Potential GHG Emission Reductions	Cost per Ton	Externalities, Feasibility Considerations	Priority for Analysis	Notes/Related Actions
4.12	Public Involvement					
4.13	Perception of Public Safety					
4.14	Focus on Reducing Cost of Development					
4.15	Affordable Housing Funds Targeted to Station Areas					
4.16	Value Capture Strategies					
4.17	Encourage Real Estate Market to Focus on Less Developed Transit Stations					
4.18	Condition Transportation Investment on Housing Density					
4.19	Create Land Banking and Land Acquisition Funds					

Acronyms

ASTM = American Society of Testing Materials
ATVs = all-terrain vehicles
B2 = fuel mixture of 2% biodiesel and 98% gasoline
BRT = Bus Rapid Transit
CCI = Cross-Cutting Issues
CO_2 = carbon dioxide

CMAQ = Congestion Management and Air Quality
DOT = Department of Transportation
E10 = fuel mixture of 10% ethanol and 90% gasoline
EPA = U.S. Environmental Protection Agency
GHG = greenhouse gas
HOV = high-occupancy vehicles
LCF = low-carbon fuel
LRT = light rail transit
LEED = Leadership in Energy and Environmental Design
MPG = miles per gallon
MPO = metropolitan planning organization
R&D = research and development
RFS = renewable fuel standard
SLR = sea level rise
TIF = tax increment financing
TDRs = transferable development rights
TRU = truck refrigeration unit
TWG = Technical Work Group
VMT = vehicle miles traveled.